

Cylindrical Thread Rolling Die

A21-010

HSS Cylindrical Thread Rolling Die production with CBN and conventional wheel.

Wheel No. 1 CBN with three profiles on.

Wheel No. 2 is conventional wheel with single profile.



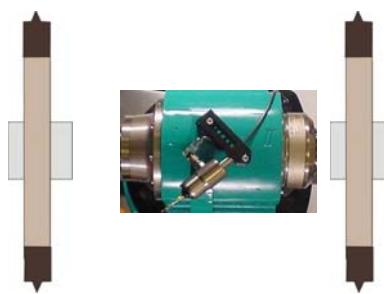
1. Cycletime for Production

| | | | | | |
|--|------------|----------|------------|-----------|------------|
| Workpiece: Ø178 L76 Z310 P1.805 Helix 21° Material HSS | | | | | |
| Operations | MainThread | Dress | MainThread | Dress | MainThread |
| Feed [mm/Min] | 250 | 36 | 2000 | 36 | 2000 |
| Increments [tot./part.] | 0.02/0.02 | 0.1/0.01 | 0.03/0.01 | 0.05/0.01 | 0.02/0.005 |
| Cutting speed [m/s] | 45 | 12 | 45 | 12 | 45 |
| Used wheels | 1 | 2 | 2 | 2 | 2 |
| Grinding time [s] | 1941 | 800 | 1378 | 400 | 1837 |
| Total cycle time | 105 Min 56 | | | | |

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

| | |
|---|---------------|
| 1 | DXF Ø200 B106 |
| 2 | DXF Ø200 C220 |



1

2

3. Machine and Software Requirements

Machines: 5 axes CNC grinders : NORMAcfg

Coolant: Synthetic Oil, pressure 10 bar

Control: Fanuc 31i

Software: Quinto 5

Accessories: Dressing Unit

Responsible engineer: OP, 25.5.13

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